REMARKS

The Office Action of December 30, 2008, and the references cited therein have been carefully considered.

In this response, FIG. 1 of the drawings has been amended to include reference numerals 2-4 mentioned in paragraph [0016] of the present specification, and the claims have been amended to even more clearly and particularly define the invention. More specifically, prior independent claims 1 and 11 have been cancelled and replaced with new independent claim 14 and dependent claims 15-18. Claims 2, 3, 6, 9, 12, and 13 also have been cancelled, and the remaining rejected claims have been amended so that they properly depend from claim 14 or a claim dependent thereon. Clams 4, 5, 7, 8, 10, and 14-18 are currently pending.

As indicated above, FIG. 1 has been amended to insert missing reference numerals 2-4. The Examiner is respectfully requested to indicate approval of the proposed drawing changes and the enclosed revised formal drawing for FIG. 1 in the next official communication.

Reconsideration of the rejection of all claims under 35 U.S.C. §103(a) as being unpatentable over the patent to Davis et al. in view of either the patent to Frease or Leonard is respectfully requested. It is initially noted that the Frease patent is not formally cited on the Form PTO-892 included with the Office Action. Accordingly, it is respectfully requested that the Frease patent be listed on a Form PTO-892 provided with the next official communication.

The present invention is directed to a combined rock bolt including both a friction-type rock bolt and a mechanical expansion-type rock bolt in order to overcome the problems inherent in each of the two types as discussed in paragraphs [0002] and [0003] on page 1 and paragraph [0031] of the present application. According to the present invention as defined in claim 1, the rock bolt includes a friction-type rock bolt, including a radially expandable, inflatable, elongate tubular member (18) connected to one end of a further elongate member (12) and a mechanical expansion type unit or anchor (16), e.g.,

a wedge-type anchor, connected to the other end of the further elongate member (12). With this arrangement, the inflatable friction-type anchor or elongate tubular member (18) is physically displaced from the mechanically expandable anchor unit (16) by the length of the elongate member (12) and, during use, is disposed adjacent the mouth of the drill hole in frictional engagement with the surface of the drill hole, while the mechanically expandable unit (16) is disposed in anchoring relationship with the wall of the drill hole at a distance from the drill hole opening corresponding to the entire length of the rock bolt. Thus, it is substantially spaced from the expandable tubular member (18). It is respectfully submitted that there is no disclosure or suggestion in any of the three cited references that would make it obvious to combine the references in the manner suggested in the Office Action, except possibly through the use of hindsight in light of Applicant's disclosure. It is, moreover, submitted that even if the teachings of the references were combined, the result would not be the invention defined in claim 14, or the claims dependant thereon.

The patent to Davis discloses a rock bolt that generally corresponds to the friction-type anchoring arrangement produced by the radially expandable elongate tubular member (18) according to the present invention. As recognized by the Examiner, this reference does not disclose a mechanical expansion unit or anchor (16), as required by claim 14, and does not disclose or suggest that any additional or different type of anchor should be provided or is desirable.

In an attempt to overcome the deficiencies of the Davis reference, the Frease and Leonard references are cited. Both of these references show rock bolts with conventional mechanical expansion-type anchor units. Neither of these references, however, discloses that the mechanical expansion-type anchors should be combined with any other type of anchoring arrangement. In attempting to combine the teachings of these references with those of Davis, it is alleged in the Office Action that since both references contain a tubular member (28 or 22), in addition to the mechanical expansion unit (30 or 6), it would be obvious to provide the device of Davis with the additional mechanical expansion-type anchor of Frease or Leonard to arrive at Applicant's claimed invention. However, the tubular members of the Frease and Leonard patents are not

radially expandable as a result of internal pressure, nor do they provide any anchoring function with regard to the drill hole wall, as required by claim 14. Rather, the tubular section of Frease is used to improve the mixing of resin as the anchor is set and increases the resistance to movement of the anchor in the drill hole during installation while reducing the required amount of resin. The tubular section of Leonard performs a similar function but, like the tubular section of Frease, does not affect the anchoring function of the rock bolt. It is, therefore, respectfully submitted that one skilled in the art would not consider combining these references.

In addition, the Frease and Leonard patents both teach that the mechanical expandable anchor units should be directly adjacent the tubular sections. Consequently, even if one skilled in the art were to combine these references based on the respective teachings, as suggested in the Office Action, the mechanical expandable anchor unit would be directly adjacent the expandable tubular member, and not displaced from the expandable tubular unit by the length of the further tubular member or shank (12), as required by claim 14. Thus, in use, the two anchor units would not be at opposite ends of the drill hole, as is the case with the rock bolt according to the present invention, and thus would not provide the improved anchoring results achieved according to the present invention. Accordingly, for the above-stated reasons, it is respectfully submitted that independent claim 14 is allowable over the combination of the David patent in view of Frease or Leonard.

Rejected claims 4, 5, 7, 8, and 15-18 are each dependent on independent claim 14 and, accordingly, are allowable over the cited combination of references for at least the same reasons as that claim.

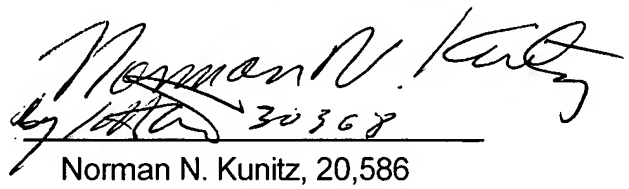
In view of the above amendments and for the above-stated reasons, it is submitted that all pending claims, i.e., claims 4, 5, 7, 8, 10 and 14-18, are allowable over the prior art of record, and are in condition for allowance. Such action and the passage of this application to issue are, therefore, respectfully requested.

If the Examiner is of the opinion that the prosecution of the application would be advanced by a personal interview, the Examiner is invited to telephone undersigned counsel to arrange for such an interview.

To the extent necessary during prosecution, Applicant hereby requests any required extension of time not otherwise requested and hereby authorizes the Commissioner to charge any required fees not intentionally omitted, including application processing, extension, extra claims fees, statutory disclaimer, issue, and publication fees, to Deposit Account No. 06-1135 with respect to Order No. 7984-88126.

Respectfully submitted,

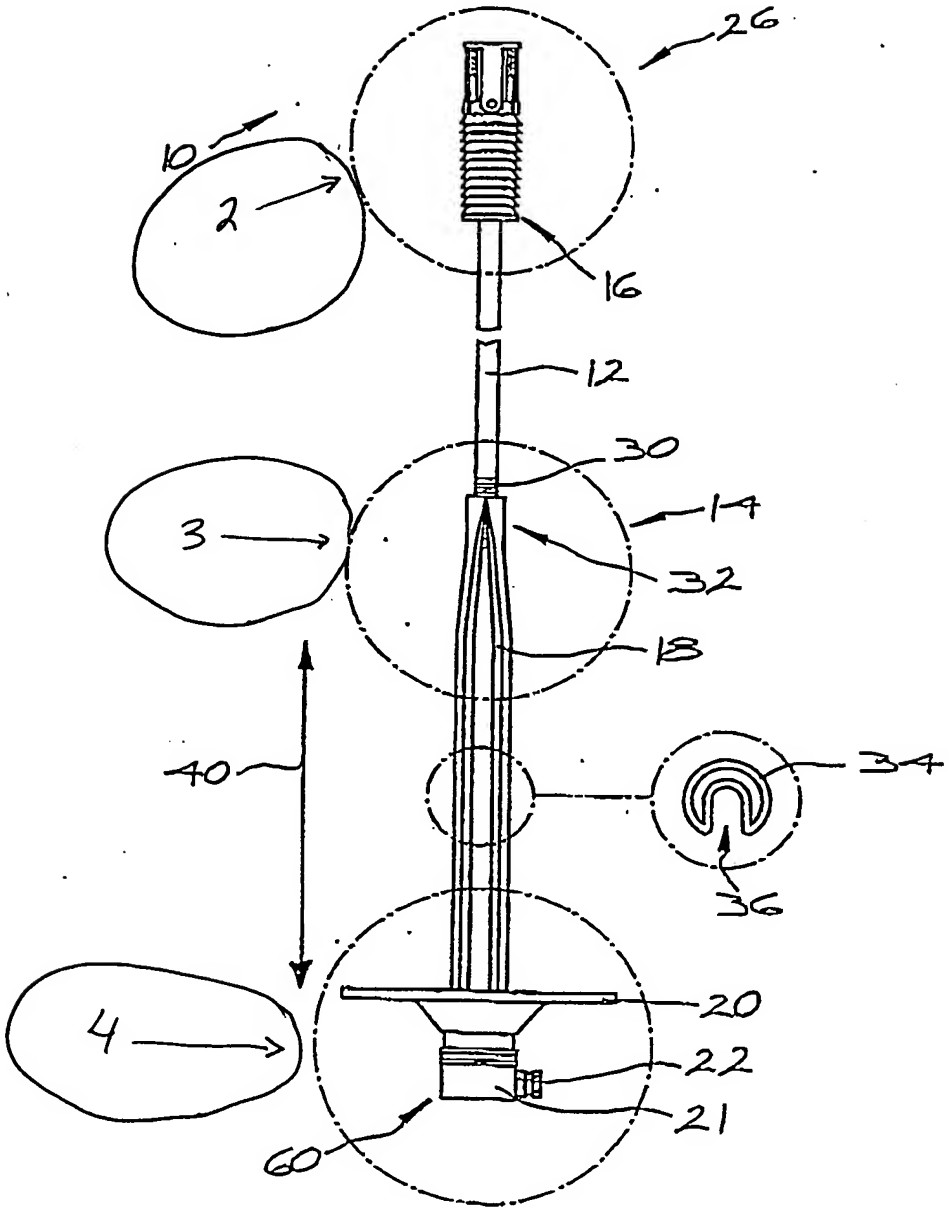
FITCH, EVEN, TABIN & FLANNERY

BY: 

Norman N. Kunitz, 20,586

Customer No. 42798
One Lafayette Centre
1120 - 20th Street, NW, Suite 750 South
Washington, DC 20036
(202) 419-7000 (telephone)
(202) 419-7007 (telecopier)
NNK:rk

FIG 1



ANNOTATED SHEET